



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0710; Directorate Identifier 2017-NM-019-AD]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Airbus Model A300 B4-600R series airplanes; Model A300 B4-603, B4-620, and B4-622 airplanes; Model A300 C4-605R Variant F airplanes; and Model A300 F4-605R airplanes. This proposed AD was prompted by a determination that the top stringer joints at rib 18 are an area of uniform stress distribution, which indicates that cracks may develop in adjacent stringers at the same time. This proposed AD would require an inspection of the upper wing skin and top stringer joints, and modification of the stringer joint couplings if necessary. We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Airbus SAS, Airworthiness Office – EAW, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; Internet <http://www.airbus.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0710; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Dan Rodina, Aerospace Engineer,
International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind
Avenue SW., Renton, WA 98057-3356; telephone 425-227-2125; fax 425-227-1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2017-0710; Directorate Identifier 2017-NM-019-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

Fatigue damage can occur locally, in small areas or structural design details, or globally, in widespread areas. Multiple-site damage is widespread damage that occurs in a large structural element such as a single rivet line of a lap splice joining two large skin panels. Widespread damage can also occur in multiple elements such as adjacent frames or stringers. Multiple-site damage and multiple-element damage cracks are typically too

small initially to be reliably detected with normal inspection methods. Without intervention, these cracks will grow, and eventually compromise the structural integrity of the airplane. This condition is known as widespread fatigue damage (WFD). It is associated with general degradation of large areas of structure with similar structural details and stress levels. As an airplane ages, WFD will likely occur, and will certainly occur if the airplane is operated long enough without any intervention.

The FAA's WFD final rule (75 FR 69746, November 15, 2010) became effective on January 14, 2011. The WFD rule requires certain actions to prevent structural failure due to WFD throughout the operational life of certain existing transport category airplanes and all of these airplanes that will be certificated in the future. For existing and future airplanes subject to the WFD rule, the rule requires that DAHs establish a limit of validity (LOV) of the engineering data that support the structural maintenance program. Operators affected by the WFD rule may not fly an airplane beyond its LOV, unless an extended LOV is approved.

The WFD rule (75 FR 69746, November 15, 2010) does not require identifying and developing maintenance actions if the DAHs can show that such actions are not necessary to prevent WFD before the airplane reaches the LOV. Many LOVs, however, do depend on accomplishment of future maintenance actions. As stated in the WFD rule, any maintenance actions necessary to reach the LOV will be mandated by airworthiness directives through separate rulemaking actions.

In the context of WFD, this action is necessary to enable DAHs to propose LOVs that allow operators the longest operational lives for their airplanes, and still ensure that

WFD will not occur. This approach allows for an implementation strategy that provides flexibility to DAHs in determining the timing of service information development (with FAA approval), while providing operators with certainty regarding the LOV applicable to their airplanes.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2017-0023, dated February 10, 2017 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Airbus Model A300 B4-600R series airplanes; Model A300 B4-603, B4-620, and B4-622 airplanes; Model A300 C4-605R Variant F airplanes; and Model A300 F4-605R airplanes. The MCAI states:

In response to the FAA Part 26 rule change concerning Widespread Fatigue Damage (WFD), all wing structural items of the A300-600 design deemed potentially susceptible to WFD were assessed. The top stringer joints at Rib 18 were highlighted as an area of uniform stress distribution, indicating that cracks may develop in adjacent stringers at the same time which is known as Multi Element Damage (MED). Each affected stringer joint consists of three main load transferring parts: an overlapping flange, two straps attached through the stringer web and a strap on the top flange. All the components of the joint are attached with fasteners. The fastener holes were the subject of a MED WFD analysis, which showed that cracking could occur from a number of the holes in the joint on stringers 11, 12, 13, 14, 15, 16, 17, and 18.

This condition, if not detected and corrected, could reduce the structural integrity of the wing.

Prompted by the conclusion of the WFD analysis, Airbus issued Service Bulletin (SB) A300-57-6118 to provide modification instructions. The modification will both re-life

via oversizing and inspect via non-destructive test a defined number of stringer joint fastener holes at Rib 18. This modification will delay the onset of cracking at the stringer joint, providing it is completed at the specified time and will delay the requirement for subsequent inspection.

For the reasons described above, this [EASA] AD requires a detailed visual inspection (DVI) [for damage, including cracking] of the upper wing skin and the top stringer joints at Rib 18, [and corrective action if necessary] and modification of the stringer joint couplings at Rib 18, on both wings [as applicable].

The modification includes a related investigative action, i.e., a special detailed (roto-probe) inspection for damage, including cracking, of the fastener holes in the upper wing skin, and corrective action if necessary. Corrective actions include repairing any damage. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0710.

Related Service Information under 1 CFR part 51

Airbus has issued Service Bulletin A300-57-6118, Revision 01, dated January 31, 2017. This service information describes procedures for an inspection of the upper wing skin and top stringer joints at rib 18, and modification of the stringer joint couplings. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination and Requirements of this Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in

the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Costs of Compliance

We estimate that this proposed AD affects 65 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs				
Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections and modification	37 work-hours X \$85 per hour = \$3,145	\$4,770	\$7,915	\$514,475

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Airbus: Docket No. FAA-2017-0710; Directorate Identifier 2017-NM-019-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Airbus Model A300 B4-605R, B4-622R, B4-603, C4-605R Variant F, B4-620, B4-622, and F4-605R airplanes, certificated in any category, all serial numbers except Model A300 F4-605R airplanes that have embodied Airbus modification 12699 in production.

(d) Subject

Air Transport Association (ATA) of America Code 57, Wings.

(e) Reason

This AD was prompted by a determination that the top stringer joints at rib 18 are an area of uniform stress distribution, which indicates that cracks may develop in

adjacent stringers at the same time. We are issuing this AD to detect and correct damage (including cracking) at the stringer joints, which could reduce the structural integrity of the wing.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Definitions

For the purposes of this AD, the definitions in paragraphs (g)(1) through (g)(5) of this AD apply.

(1) Group 1 airplanes are defined as Airbus Model A300 B4-603, B4-605R, B4-620, B4-622, and B4-622R airplanes.

(2) Group 2 airplanes are defined as Airbus Model A300 C4-605 Variant F and F4-605R (if in pre-modification 12699 configuration) airplanes.

(3) Short range (SR) is defined as airplanes with an average flight time of less than 1.5 flight hours per flight cycle.

(4) Long range (LR) is defined as airplanes with an average flight time equal to or higher than 1.5 flight hours per flight cycle.

(5) For determining the “short range” and “long range” airplanes, the average flight time is the total accumulated flight hours, counted from take-off to touch-down, divided by the total accumulated flight cycles at the effective date of this AD.

(h) Inspection and Modification

Not before exceeding the applicable lower thresholds as specified in table 1 to paragraph (h) of this AD, and within the compliance times specified in paragraphs (h)(1),

(h)(2), (h)(3), and (h)(4) of this AD, as applicable: Accomplish a detailed visual inspection for damage (including cracking) of the upper wing skin and top stringer joints at rib 18 on both wings, do all applicable corrective actions, and do the applicable modification, including related investigative and corrective actions, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-57-6118, Revision 01, dated January 31, 2017, except as required by paragraph (i) of this AD. Do all applicable modifications, related investigative actions, and corrective actions before further flight.

(1) For Group 1, LR airplanes: Inspect at the time specified in paragraph (h)(1)(i) or (h)(1)(ii) of this AD, whichever occurs later.

(i) Before exceeding 32,500 flight cycles or 70,300 flight hours, whichever occurs first since first flight of the airplane.

(ii) Within 700 flight cycles, 1,500 flight hours, or 12 months, whichever occurs first after the effective date of this AD.

(2) For Group 1, SR airplanes: Inspect at the time specified in paragraphs (h)(2)(i) or (h)(2)(ii) of this AD, whichever occurs later.

(i) Before exceeding 35,100 flight cycles or 52,600 flight hours, whichever occurs first since the first flight of the airplane.

(ii) Within 700 flight cycles or 1,000 flight hours, or 12 months, whichever occurs first after the effective date of this AD.

(3) For Group 2, LR airplanes: Inspect before exceeding 35,000 flight cycles or 75,700 flight hours, whichever occurs first since the first flight of the airplane.

(4) For Group 2, SR airplanes: Inspect before exceeding 37,800 flight cycles or 56,700 flight hours, whichever occurs first since the first flight of the airplane.

Table 1 to paragraph (h) of this AD – *Compliance Time Lower Thresholds*

Applicable airplanes	Compliance time flight cycles (FC) or flight hours (FH), whichever occurs first since first flight of the airplane
Group 1, LR	Not before exceeding 30,900 FC or 66,700 FH
Group 1, SR	Not before exceeding 28,700 FC or 43,000 FH
Group 2, LR	Not before exceeding 28,600 FC or 61,700 FH
Group 2, SR	Not before exceeding 34,400 FC or 51,600 FH

(i) Service Information Exception

Where Airbus Service Bulletin A300-57-6118, Revision 01, dated January 31, 2017, specifies to contact Airbus for appropriate action, and specifies that action as “RC” (Required for Compliance): Before further flight, accomplish corrective actions in accordance with the procedures specified in paragraph (k)(2) of this AD.

(j) Credit for Previous Actions

This paragraph provides credit for actions required by paragraph (h) of this AD, if those actions were performed before the effective date of this AD using Airbus Service Bulletin A300-57-6118, dated June 30, 2015.

(k) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Branch, send it to the attention of the person identified in paragraph (l)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) Required for Compliance (RC): If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated

from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(l) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2017-0023, dated February 10, 2017, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0710.

(2) For more information about this AD, contact Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-2125; fax 425-227-1149.

(3) For service information identified in this AD, contact Airbus SAS, Airworthiness Office – EAW, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; Internet <http://www.airbus.com>. You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on July 18, 2017.

Victor Wicklund,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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